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# ServerPac and CustomPac Dialog SMP/E V3R4 for z/OS V1R7



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geoManager	DFSMSdfp	IMS/ESA	RMF
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ADSTAR	DFSMShsm	IPDS	S/390
AFP	DFSMSrmm	Language Environment	S/390 Parallel Enterprise Server
APL2	DFSORT	Multiprise	SecureWay
APPN	Enterprise System 3090	MQSeries	StorWatch
BookManger	Enterprise System 4381	MVS/ESA	Sysplex Timer
BookMaster	Enterprise System 9000	Network Station	System/390
C/370	ES/3090	NetSpool	SystemView
CallPath	ES/4381	OfficeVision/MVS	SOM
CICS	ES/9000	Open Class	SOMobjects
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CICSPlex	First Failure Support Technology	OS/390	VisualGen
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DataPropagator	FFST	Print Services Facility	VTAM
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## ServerPac Enhancements

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- ❑ Merge data set support for filesystems
  - Installers with large DASD devices would choose to use this function to minimize their post-installation filesystem management
- ❑ Dialog and install changes in support of Health Checker
- ❑ Other dialog enhancements
- ❑ Removal of “outdated” PSP buckets



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## CustomPac Dialog Filesystem Merge

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- ❑ Using the new “Filesystem Merge” capabilities in the CustomPac dialog, you can:
  - Merge filesystems to minimize the number of them and maximize DASD utilization
    - Allows customization fo filesystem structures
    - Allows exploitation of DASD capacities
  - Be shielded from creating the BPXPRMFS
  - Be protected from creating an invalid software configuration



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## ServerPac Considerations for Root



- ❑ If you have selected additional products which are supplied in unique physical filesystems, attempt to merge them into the root (assuming adequate DASD)
  - Products of interest are:
    - JAVA
    - XML Toolkit



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## Merging Filesystems



- ❑ Merge filesystems capability
  - Structured (ruled by) their mountpoints
    - A filesystem can only be merged into a parent mountpoint'ed filesystem
    - Intermediate mountpoint'ed filesystems may be included in a single merge operation
    - Candidates must be eligible for merging
  - New panel CPPP605V is displayed when the target of the merge function is a filesystem



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# Filesystem Merge



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# Modify System Layout Panel



```
CPPP605T ----- Modify System Layout ( RQ170021 ) -----
OPTION ==> _
A   Create a Recommended System Layout (Automatically assign target and
    DLIB data sets to physical volumes by data set type)
C   View and change data sets by selected attributes
T   View and change device type table (DEVT)
D   Data Set Summary (SUMD)
M   Merged Data Set Summary (SUMD M)
S   Shipped and Merged Data Set Summary (SUMD S)
U   User Data Set Summary (SUMD U)

V   Physical Volume Summary (SUMP)
L   Logical Volume Summary (SUML)

P   Product, Feature and Element Summary

----- Session Control Options -----
K   Keep Changes made in this dialog session so far (SAVE)
B   Back Out changes from this dialog session (CANCEL)
```



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# Summary of Data Sets (SUMD)



## Display merge candidates in ZOSR17.OMVS.ROOT

```
CPPP6052 ----- Modify System Layout ( RQ1 Row 1,890 to 1,897 of 1,897
COMMAND ==>                                SCROLL ==> PAGE
```

### Summary Of Data Sets

```
Primary Commands:(? SET Locate Find Next Previous SORT Change OFile OList
                  FindComp)
Line Commands:(Merge eXpand Conflict Unmerge Select)
```

S	Data Set Name	X	F	Type	RECFM	LRECL	Primary Tracks
m	ZOSR17.OMVS.ROOT			HFS			39066
-	ZOSR17.OMVS.TIVOLI			HFS			1309
	ZOSR17.OMVS.VAR			HFS			529
	ZOSR17.OMVS.VE			HFS			228
	ZOSR17.OMVS.XML			HFS			18713
	ZOSR17.SMPGLOG			SEQ	VB	510	85
	ZOSR17.SMPGLOGA			SEQ	VB	510	85
	ZOSR17.SMPPTS			PDS	FB	80	18000

\*\*\*\*\*Bottom of Data\*\*\*\*\*



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# Merge Candidate Filesystems



```
CPPP605V ----- Modify System Layout ( RQ170021 ) ----- Row 1 to 2 of 2
COMMAND ==> _                                SCROLL ==> PAGE
```

### Data Set Merge Candidates for ZOSR17.OMVS.ROOT

```
Primary Commands:(? SET Locate Find Next Previous Merge)
Line Commands:(Information Select)
```

S	Data Set Name	DS Type	Mount Point
	ZOSR17.OMVS.XML	HFS	/usr/lpp/ixm
	ZOSR17.OMVS.JV390	HFS	/usr/lpp/java/J1.4

\*\*\*\*\* Bottom of data \*\*\*\*\*



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# Merge Candidate Data Sets Panel Changes - CPPP605M



- New line command - I (Information)
- Removed RECFM column
- Added APF column - (Y= APF authorized)

CPPP605M ----- Modify System Layout ( RQ170021 ) -- Row 1 to 21 of 51  
 COMMAND ==> \_ SCROLL ==> PAGE

Data Set Merge Candidates for ISF.SISFLOAD

Primary Commands: (? SET Locate Find Next Previous SORT Merge)  
 Line Commands: (Information Select Conflict)

S Data Set Name	Element Type	DS Type	MCAT Reqd	IPL Vol	APF
APK.ACIF.SAPKMOD1	LMOD	PDS	Y	N	N
ASM.SASMMOD1	LMOD	PDS	Y	N	Y
CBC.SCLBDLL	LMOD	PDS	Y	N	Y
CSF.SCSFM0D0	LMOD	PDS	Y	N	N
DIT.V1R3M0.SDITMOD1	LMOD	PDS	Y	N	Y
DVG.NFTP230.SDVGLMD0	LMOD	PDS	Y	N	Y
DVG.NFTP230.SDVGLMD2	LMOD	PDS	Y	N	N
EOX.SEPHLOD1	LMOD	PDS	Y	N	N



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# Support for zFS Root



- z/OS has removed the restriction on using zFS for the root filesystem
  - The shipped HFS data set for the root made be “switched” to a zFS

CPPP605D ----- Modify System Layout ( RQ170021 ) -----  
 COMMAND ==> \_

Data Set Modification - Attributes

```

Data set Name ==> ZOSR17.OMVS.ROOT
Shipped       : OMVS.ETC

Placement     : C      (DLIB, Target, Catalog, or User-Defined)

Data Set Type ==> ZFS  (HFS, PDS, PDSE, SEQ, VSAM, or ZFS)
Shipped       : HFS

SMS-Managed  ==> NO   (Yes or No)
SMS-Eligible  : YES
SMS-Required  : NO

Logical Volume ==> HLB002 Shipped : CAT001
Physical Volume : T625H1
Storage Class  :
  
```



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## z/OS Health Checker Enhancements



- ❑ The CustomPac Dialog and ServerPac are being modified in support of z/OS Health Checker enhancements:
  - Dialog changes in support of LNKLSTed data sets to be allocated with no secondaries
  - Health Checker activation in ServerPac

## LNKLSTed Data Set Support



- ❑ LNKLSTed data sets now shipped with no secondary space allowed
  - The default “free space” for data sets with no secondaries is 20% - (10% is default for others)
  - Other data sets may also be shipped with no secondaries
- ❑ Support is added to view / change to allow you to “find” data sets shipped with no secondaries
  - The “change” command is enhanced to change data sets with no secondaries to allow secondaries
  - This is in support of installation of a SMP/E maintenance system

# Secondary Space Selection



CPPP605R ----- Select Data Set View ( RQ170021 ) - Row 18 to 32 of 32  
COMMAND ==> \_ SCROLL ==> PAGE

Select a Data Set List View:

Primary Commands: (?)  
Line Commands: (Select)

S	Display	Data Set List Description
-	-----	-----
	New Data Set	Whether data set is new in this order (Yes or No)
	Product Name	Name of the product, feature or element
	Renameable	Whether rename is allowed (Yes, No or Overridden)
	RECFM	Record Format (FB, VB, U, etc.)
	Secondary Space	Whether secondary space is allowed (Yes or No)
	Switchable	Can be changed between PDS/PDSE or HFS/zFS (Yes or No)
	SMP/E SYSLIB	Data set in SMP/E SYSLIB concatenation (Yes or No)
	SMS-Eligible	Whether data set may be SMS-managed (Yes or No)
	SMS-Managed	Whether data set is SMS-managed (Yes or No)
	SMS-Required	Whether data set must be SMS-managed (Yes or No)
	SST	Subsystem Type (MVS, CICS, DB2, IMS, NCP)
	Tracks	Current Data Set Size in Tracks
	TVOL	Special target volume placement (FIRST or LAST)
	Unit	Assigned Unit
	Volume Number	Volume Sequence Number (Tnn, Dnn, and Bnn)
	*****	Bottom of data *****



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# List Data Sets with/without Secondary Space



- Enter a S on either the NO or YES Values to:
  - Display data sets with or without secondary space

CPPP605S ----- Select Values to Display ( RQ170021 ) -- Row 1 to 2 of 2  
COMMAND ==> \_ SCROLL ==> PAGE

Select list for: Secondary Space

Select values for which data sets are to be listed and press Enter

Primary Commands: (?)  
Line Commands: (Select SS)

S	Values
--	-----
	No
	Yes
	*****Bottom of Data*****



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## Data Sets with no Secondary Space



CPPP605U ----- Data Set List ( RQ170021 ) ----- Row 53 to 72 of 81  
COMMAND ==> \_ SCROLL ==> PAGE

Data Set List for: Secondary Space

Primary Commands:(? SET Locate Find Next Previous SORT CHange OFile OList  
FindComp)

Line Commands:(Merge eXpand Conflict Unmerge Select)

S Data Set Name	Selected Value	Physical Volume
REXX.SFANLMD	No	Z17RS1
SCRIPT.R40.DCFLOAD	No	Z17RS1
SYS1.CMDLIB	No	Z17RS1
SYS1.CSSLIB	No	Z17RS1
SYS1.DFQLLIB	No	Z17RS1
SYS1.DGTLLIB	No	Z17RS1
SYS1.LINKLIB	No	Z17RS1
SYS1.MIGLIB	No	Z17RS1
SYS1.NFSLIBE	No	Z17RS1
SYS1.NUCLEUS	No	Z17RS1



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## Panels Displayed from CPPP605U



- ❑ Two logically connected panels (“1 of 2” and “2 of 2”) replace former constructs for:
  - CPPP605D -Data Set Modification - Attributes
  - CPPP605E - Data Set Modification - Space
  - CPPP605F - Used for filesystems
  - Text / content are dynamically determined based on data set type
    - PO / PS / VSAM / HFS, zFS



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## Select Data Set Attributes from CPPP605U - (1 of 2)



```
CPPP605D ----- Data Set Attributes 1 of 2 ( RQ170021 ) -----
COMMAND ==> _

Data set Name   : SYS1.NUCLEUS
Shipped Name   : SYS1.NUCLEUS
Data Set Type  : PDS                               Shipped      : PDS

Data Set Element Type : LMOD
                  Category : Target

Logical Volume  : IPLVOL                           Shipped      : IPLVOL
SMS Managed    : No

Physical Volume : Z17RS1

Primary Tracks ==> 924                             Shipped      : 924
Secondary Tracks : 0                               Shipped      : 0
Directory Blocks ==> 123                           Shipped      : 123

Product, Element, or Feature : BCP
```



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## Select Data Set Attributes from CPPP605U - (2 of 2)



```
CPPP605E ----- Data Set Attributes 2 of 2 ( RQ170021 ) -----
COMMAND ==> _

Data set Name   : SYS1.NUCLEUS

RECFM          : U
LRECL          :
APF Authorized  : No
LPA Eligible   : No
LPA Required   : No
Link List Eligible : No
SMP/E SYSLIB Data Set : Yes
Required on IPL Volume : Yes
SMS-Eligible   : No
SMS-Required   : No
Renameable     : No
Required in Master Catalog : Yes
```



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## Command to Change Secondary Space



- ❑ New operand **SECOND** added to **CH**ange command
  - CH SECOND YES causes all eligible data sets (in the current display) to be switched from no secondaries to having 10% of primary included as the secondary allocation.
  - “CH SECOND NO” only switches data sets that were shipped with no secondaries back to not having secondary allocation

## Support for z/OS Health Checker



- ❑ Updates included to the installed system to allow Health Checker to be active on the first IPL:
  - Allocate required “operational” data sets in ALLOCDS job
  - Added the START command for Health Checker in COMMND00

## Removal of PSP Bucket

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- ❑ PSP buckets are removed from ServerPac and CBPDO to resolve the problems of redundant, conflicting and obsolete information
- ❑ To ensure currency of the buckets, installers are directed to acquire buckets from the internet

## Migration Concerns

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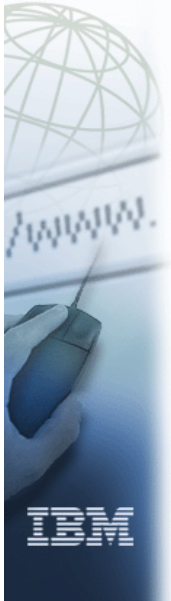


- ❑ No new migration considerations with z/OS V1R7 dialog
  - Changes introduced in the z/OS V1R6 dialog and therefore if you skipped that release - upgrade your dialog is required to receive the order for z/OS V1R7
- ❑ Merging with saved configurations now limited to three releases prior to the level of the executing dialog
  - Will result in the error message:
    - CPPP0601009E Configuration selected for merge is not supported
- ❑ Dialog used to install a ServerPac z/OS V1R7 order and the “master dialog” is automatically updated if it is lower than the order’s level

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# SMP/E V3R4



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## Internet Delivery with SMP/E V3R4



- ❑ To acquire service and deliver via internet using ShopzSeries today requires the following steps:
  - User runs an SMP/E job to create an inventory file
  - User logs onto ShopzSeries and initiates a service order transaction that will use the inventory file
  - User uploads the inventory file to the IBM ShopzSeries server
  - User receives an email indicating the service package is ready
  - User logs onto ShopzSeries to get the service package download information (copies the custom RECEIVE FROMNETWORK job)
  - User runs the custom SMP/E job to download over the internet and process the service package



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## SMP/E Structure for Service Delivery



- ❑ The solution operates as a client/server application:
  - SMP/E is the client that runs on a user's local z/OS system
  - The IBM Automated Delivery Server is the remote IBM server



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## Solution Attributes



- ❑ Order selection options:
  - Corrective service:
    - PTFs specified by name
    - PTFs to resolve APARs specified by name
  - Preventive service:
    - Critical - PTFs identified as HIPER or PE fixes
    - Recommended - PTFs identified with an RSU sourceid and Critical PTFs
    - All - All available PTFs
    - Holddata - No PTFs, only 2-years of enhanced HOLDDATA
- ❑ Inventory file (Bitmap) is generated automatically.
- ❑ The request and inventory sent to the remote IBM server



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# IBM Automated Delivery Server

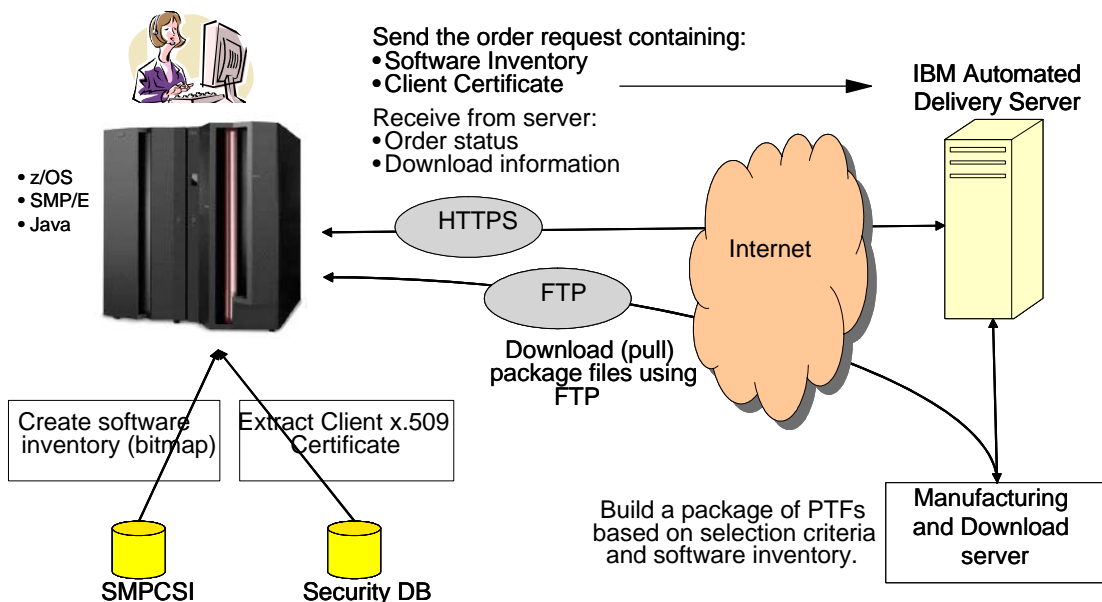


- ❑ Users must register to obtain access to the IBM server
- ❑ One time registration
- ❑ New option in ShopzSeries to perform registration
- ❑ Registration process dynamically generates an x.509 client certificate
- ❑ SMP/E will read the certificate from the security product database and pass it to the server as needed



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# Order Transaction Overview



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## Configuration and Setup

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- ❑ SMP/E uses Java classes for HTTPS communication.
- ❑ SMP/E requires IBM SDK for z/OS, Java 2 Technology Edition, Version 1.4 (5655-I56) or its successor
- ❑ One-time configuration and setup:
  - Establish access to the Java runtime and SMP/E application classes
  - Register to use the server (obtain a user certificate)
  - Setup security product data base (i.e. RACF)
  - Documented in the SMP/E User's Guide (SA22-7773), Chapter 4, "Preparing to Use RECEIVE ORDER Processing"



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## Solution When no ICSF

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- ❑ If ICSF is not active or configured, SMP/E will now use an alternate method to compute SHA-1 hash values.
  - Java MessageDigest class
  - SMP/E requires access to Java and SMP/E application classes (just like for RECEIVE ORDER)
- ❑ Used for the following functions:
  - RECEIVE ORDER
  - RECEIVE FROMNETWORK / FROMNTS
  - GIMZIP, GIMUNZIP, GIMGTPKG



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# Installation

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- ❑ SMP/E supplies ++HFS elements for Java application classes
  - New for SMP/E V3R4
- ❑ New target directory
  - DDname: SGIMBIN
  - /usr/lpp/smp/IBM/ /usr/lpp/smp/classes/com/ibm/smp/
- ❑ New distribution library
  - DDname: AGIMBIN
  - GIM.AGIMBIN